


IN THE CLAIMS:

The following list of claims will replace all prior versions of claims in the above-captioned application.

Claims 1-29 cancelled.

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- Claim 30. (New) An aesthetic control system comprising:
- a) a patient model (11) created by former values of an active substance previously delivered to numerous other patients' bodies;
 - b) means (13) for delivering the active substance at a present delivery rate (R) to a patient's body (14);
 - c) means for continuously communicating the present delivery rate (R) to the patient model (11) which calculates a present active substance concentration (CN_{actual}) in the patient's body (14) under consideration of active substance values delivered to the actual patient during the running anaesthetic treatment;
 - d) control means (17) for generating a control signal dependent upon the present active substance concentration (CN_{actual}) and a desired active substance concentration (CN_{desired}); and
 - e) means (25) for conducting the generated control signal to the delivering means (13) for varying the present delivery rate (R) on a continuous basis as required to attain a deliver rate (R) toward achieving the desired active substance concentration (CN_{desired}) in the patient's body (14).

 Claim 31. (New) The anaesthetic controller as defined in claim 30 wherein the former values (R) of the active substance supplied to the patient's body include prior active substance rates and prior active substance time periods of supply to the patient's body.

Claim 32. (New) The anaesthetic controller as defined in claim 30 including means (19) for adjusting the target value ($CN_{desired}$) of the active substance concentration.

Claim 33. (New) The anaesthetic controller as defined in claim 30 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions.

Claim 34. (New) The anaesthetic controller as defined in claim 30 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}).

Claim 35. (New) The anaesthetic controller as defined in claim 30 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}) from a depth of patient's anaesthesia signal (EEG/BIS) and a BIS target value signal T_{BIS} .

Claim 36. (New) The anaesthetic controller as defined in claim 30 including means (19) for generating a patient passive target signal (CNT_{MAN}) of the active substance concentration, means (20) for generating a patient dependent target signal (CNT_{BIS}) of the active substance concentration, and means (18) selectively responsive to said two last-mentioned means (19, 20) for transferring the desired value of the active substance concentration ($CN_{desired}$) to effect desired rate (R) of supply of the active substance to the patient's body.

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Claim 37. (New) The anaesthetic controller as defined in claim 30 including means (18) for selecting one of a patient passive target signal (CNT_{MAN}) of the active substance concentration and a patient dependent target signal (CNT_{BIS}) of the active substance concentration to effect desired rate (R) of supply of the active substance to the patient's body.

Claim 38. (New) The anaesthetic controller as defined in 30 including means (18) for selecting between two separately generated active substance concentration target values (CNT_{MAN} , CNT_{BIS}) incident to effecting the desired rate (R) of supply of the active substance to the patient's body.

Claim 39. (New) The anaesthetic controller as defined in claim 31 including means (19) for adjusting the target value ($CN_{desired}$) of the active substance concentration.

Claim 40. (New) The anaesthetic controller as defined in claim 31 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions.

Claim 41. (New) The anaesthetic controller as defined in claim 31 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}).

Claim 42. (New) The anaesthetic controller as defined in claim 31 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}) from a depth of patient's anaesthesia signal (EEG/BIS) and a BIS target value signal T_{BIS} .

Claim 43. (New) The anaesthetic controller as defined in claim 31 including means (19) for generating a patient passive target signal (CNT_{MAN}) of the active substance concentration, means (20) for generating a patient dependent target signal (CNT_{BIS}) of the active substance concentration, and means (18) selectively responsive to said two last-mentioned means (19, 20) for transferring the desired value of the active substance concentration ($CN_{desired}$) to effect desired rate (R) of supply of the active substance to the patient's body.

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- Claim 44. (New) The anaesthetic controller as defined in claim 31 including means (18) for selecting one of a patient passive target signal (CNT_{MAN}) of the active substance concentration and a patient dependent target signal (CNT_{BIS}) of the active substance concentration to effect desired rate (R) of supply of the active substance to the patient's body.
- Claim 45. (New) The anaesthetic controller 31 including means (18) for selecting between two separately generated active substance concentration target values (CNT_{MAN} , CNT_{BIS}) incident to effecting the desired rate (R) of supply of the active substance to the patient's body.
- Claim 46. (New) The anaesthetic controller as defined in claim 38 including means (19) for adjusting the target value ($CN_{desired}$) of the active substance concentration.
- Claim 47. (New) The anaesthetic controller as defined in claim 38 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions.

Claim 48. (New) The anaesthetic controller as defined in claim 38 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}).

Claim 49. (New) The anaesthetic controller as defined in claim 38 including means (20) for computing the target value ($CN_{desired}$) of the active substance concentration dependent upon patient's measured body functions, and said computing means (20) includes means (23) for generating an active substance concentration target signal (CNT_{BIS}) from a depth of patient's anaesthesia signal (EEG/BIS) and a BIS target value signal T_{BIS} .

Claim 50. (New) The anaesthetic controller as defined in claim 38 including means (19) for generating a patient passive target signal (CNT_{MAN}) of the active substance concentration, means (20) for generating a patient dependent target signal (CNT_{BIS}) of the active substance concentration, and means (18) selectively responsive to said two last-mentioned means (19, 20) for transferring the desired value of the active substance concentration ($CN_{desired}$) to effect desired rate (R) of supply of the active substance to the patient's body.
